

=====

Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2007; month=11; day=20; hr=10; min=39; sec=38; ms=945;
]

=====

Application No: 09402093

Version No: 6.0

Input Set:

Output Set:

Started: 2007-10-30 20:58:25.907

Finished: 2007-10-30 20:58:28.829

Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 922 ms

Total Warnings: 72

Total Errors: 16

No. of SeqIDs Defined: 72

Actual SeqID Count: 72

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

Input Set:

Output Set:

Started: 2007-10-30 20:58:25.907
Finished: 2007-10-30 20:58:28.829
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 922 ms
Total Warnings: 72
Total Errors: 16
No. of SeqIDs Defined: 72
Actual SeqID Count: 72

Error code	Error Description
	This error has occurred more than 20 times, will not be displayed
E 257	Invalid sequence data feature in <221> in SEQ ID (41)
E 257	Invalid sequence data feature in <221> in SEQ ID (42)
E 257	Invalid sequence data feature in <221> in SEQ ID (49)
E 257	Invalid sequence data feature in <221> in SEQ ID (50)
E 257	Invalid sequence data feature in <221> in SEQ ID (51)
E 257	Invalid sequence data feature in <221> in SEQ ID (52)
E 257	Invalid sequence data feature in <221> in SEQ ID (53)
E 257	Invalid sequence data feature in <221> in SEQ ID (54)
E 257	Invalid sequence data feature in <221> in SEQ ID (61)
E 257	Invalid sequence data feature in <221> in SEQ ID (62)
E 257	Invalid sequence data feature in <221> in SEQ ID (63)
E 257	Invalid sequence data feature in <221> in SEQ ID (64)
E 257	Invalid sequence data feature in <221> in SEQ ID (65)
E 257	Invalid sequence data feature in <221> in SEQ ID (66)
E 257	Invalid sequence data feature in <221> in SEQ ID (69)
E 257	Invalid sequence data feature in <221> in SEQ ID (70)

SEQUENCE LISTING

<110> OHSUYE, KAZUHIRO
YABUTA, MASAYUKI
SUZUKI, YUJI

<120> PROCESS FOR PRODUCING PEPTIDES USING A HELPER PEPTIDE

<130> 47259.0373

<140> 09402093

<141> 1999-09-29

<150> PCT/JP99/00406

<151> 1999-01-29

<150> JP 10-32272

<151> 1998-01-30

<160> 72

<170> PatentIn Ver. 3.3

<210> 1

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 1

Asp Asp Asp Lys

1

<210> 2

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 2

Ile Glu Gly Arg

1

<210> 3

<211> 7

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 3
Pro Phe His Leu Leu Val Tyr
1 5

<210> 4
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 4
Val Asp Asp Asp Asp Lys
1 5

<210> 5
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 5
Gly Cys His His His His
1 5

<210> 6
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 6
Pro Gly Gly Arg Pro Ser Arg His Lys Arg
1 5 10

<210> 7
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 7

His Arg His Lys Arg Ser His His His His
1 5 10

<210> 8

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 8

Ser Asp His Lys Arg
1 5

<210> 9

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 9

Gln Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His
1 5 10 15

Arg Trp Gly Arg Ser Gly Ser
20

<210> 10

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 10

Gln Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His
1 5 10 15

Gly Ser Gly Ser
20

<210> 11

<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
coding nucleotide

<220>
<221> CDS
<222> (1)..(69)

<400> 11
cag atg cat ggt tat gac gcg gag ctc cgg ctg tat cgc cgt cat cac 48
Gln Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His
1 5 10 15

cgg tgg ggt cgt tcc gga tcc 69
Arg Trp Gly Arg Ser Gly Ser
20

<210> 12
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 12
Gln Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His
1 5 10 15

Arg Trp Gly Arg Ser Gly Ser
20

<210> 13
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 13
tgggttatgac ggggagctcc gcctgtatcg ccgtcatcac gggtccg 47

<210> 14
<211> 55
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 14
gatccggaac cgtgatgacg gcgatacagg cggagctccg cgtcataacc atgca 55

<210> 15
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 15
gactcagatc ttcttgaggc cgat 24

<210> 16
<211> 36
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 16
aaaggtacct tccgcatgcc gcggatgtcg agaagg 36

<210> 17
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 17
aggccaggaa ccgtaaaaag 20

<210> 18
<211> 29
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 18

aaaatgcatc gcatcgtaac cgtgcatct

29

<210> 19

<211> 627

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
coding nucleotide

<220>

<221> CDS

<222> (82)..(543)

<400> 19

cccaggcttt acactttatg cttccggctc gtatgttgtg tggaattgtg agcggataac 60

aatttcacac	aggaaacagc	t	atg	acc	atg	att	acg	gat	tca	ctg	gcc	gtc	111
			Met	Thr	Met	Ile	Thr	Asp	Ser	Leu	Ala	Val	
			1				5					10	

gtt	tta	caa	cgt	aaa	gac	tgg	gat	aac	cct	ggc	gtt	acc	caa	ctt	aat	159
Val	Leu	Gln	Arg	Lys	Asp	Trp	Asp	Asn	Pro	Gly	Val	Thr	Gln	Leu	Asn	
			15				20						25			

cgc	ctt	gca	gca	cat	ccc	cct	ttc	gcc	agc	tgg	cgt	aat	agc	gac	gac	207
Arg	Leu	Ala	Ala	His	Pro	Pro	Phe	Ala	Ser	Trp	Arg	Asn	Ser	Asp	Asp	
			30				35					40				

gcc	cgc	acc	gat	cgc	cct	tcc	caa	cag	ttg	cgc	agc	ctg	aat	ggc	gaa	255
Ala	Arg	Thr	Asp	Arg	Pro	Ser	Gln	Gln	Leu	Arg	Ser	Leu	Asn	Gly	Glu	
		45				50					55					

tgg	cgc	ttt	gcc	tgg	ttt	ccg	gca	cca	gaa	gcg	gtg	ccg	gca	agc	ttg	303
Trp	Arg	Phe	Ala	Trp	Phe	Pro	Ala	Pro	Glu	Ala	Val	Pro	Ala	Ser	Leu	
		60				65					70					

ctg	gag	tca	gat	ctt	cct	gag	gcc	gat	act	gtc	gtc	gtc	ccc	tca	aac	351
Leu	Glu	Ser	Asp	Leu	Pro	Glu	Ala	Asp	Thr	Val	Val	Val	Pro	Ser	Asn	
	75				80					85				90		

tgg	cag	atg	cac	ggc	tac	gat	gcg	atg	cat	ggc	tat	gac	gcg	gag	ctc	399
Trp	Gln	Met	His	Gly	Tyr	Asp	Ala	Met	His	Gly	Tyr	Asp	Ala	Glu	Leu	
			95				100						105			

cgc	ctg	tat	cgc	cgt	cat	cac	ggc	tcc	gga	tcc	cct	tct	cga	cat	ccg	447
Arg	Leu	Tyr	Arg	Arg	His	His	Gly	Ser	Gly	Ser	Pro	Ser	Arg	His	Pro	
			110				115						120			

cgg	cat	gcg	gaa	ggc	acc	ttt	acc	agc	gat	gtg	agc	tcg	tat	ctg	gaa	495
Arg	His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	
		125				130						135				

ggc	cag	gcg	gca	aaa	gaa	ttc	atc	gcg	tgg	ctg	gtg	aaa	ggc	cgt	ggc	543
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
140 145 150

taagtcgaca gcccgcttaa tgagcgggct tttttttctc ggaattaatt ctcatgtttg 603

acagcttatc atcgataagc tttta 627

<210> 20

<211> 154

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
fusion protein

<400> 20

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp
1 5 10 15

Trp Asp Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro
20 25 30

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro
35 40 45

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe
50 55 60

Pro Ala Pro Glu Ala Val Pro Ala Ser Leu Leu Glu Ser Asp Leu Pro
65 70 75 80

Glu Ala Asp Thr Val Val Val Pro Ser Asn Trp Gln Met His Gly Tyr
85 90 95

Asp Ala Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His
100 105 110

His Gly Ser Gly Ser Pro Ser Arg His Pro Arg His Ala Glu Gly Thr
115 120 125

Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu
130 135 140

Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
145 150

<210> 21

<211> 187

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

fusion protein

<400> 21

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp
1 5 10 15

Trp Asp Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro
20 25 30

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro
35 40 45

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe
50 55 60

Pro Ala Pro Glu Ala Val Pro Ala Ser Leu Leu Glu Ser Asp Leu Pro
65 70 75 80

Glu Ala Asp Thr Val Val Val Pro Ser Asn Trp Gln Met His Gly Tyr
85 90 95

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro
100 105 110

Pro Phe Val Pro Thr Glu Pro His His His His His Gly Gly Arg Gln
115 120 125

Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His Arg
130 135 140

Trp Gly Arg Ser Gly Ser Pro Ser Arg His Lys Arg His Ala Glu Gly
145 150 155 160

Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys
165 170 175

Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
180 185

<210> 22

<211> 184

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
fusion protein

<400> 22

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp
1 5 10 15

Trp Asp Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro
20 25 30

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro

35

40

45

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe
50 55 60

Pro Ala Pro Glu Ala Val Pro Ala Ser Leu Leu Glu Ser Asp Leu Pro
65 70 75 80

Glu Ala Asp Thr Val Val Val Pro Ser Asn Trp Gln Met His Gly Tyr
85 90 95

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro
100 105 110

Pro Phe Val Pro Thr Glu Pro His His His His His Gly Gly Arg Gln
115 120 125

Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His Gly
130 135 140

Ser Gly Ser Pro Ser Arg His Lys Arg His Ala Glu Gly Thr Phe Thr
145 150 155 160

Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile
165 170 175

Ala Trp Leu Val Lys Gly Arg Gly
180

<210> 23

<211> 184

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
fusion protein

<400> 23

Met Thr Met Ile Thr Asp Ser Leu Ala Val Val Leu Gln Arg Lys Asp
1 5 10 15

Trp Asp Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro
20 25 30

Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp Ala Arg Thr Asp Arg Pro
35 40 45

Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Arg Phe Ala Trp Phe
50 55 60

Pro Ala Pro Glu Ala Val Pro Ala Ser Leu Leu Glu Ser Asp Leu Pro
65 70 75 80

Glu Ala Asp Thr Val Val Val Pro Ser Asn Trp Gln Met His Gly Tyr
85 90 95

Asp Ala Pro Ile Tyr Thr Asn Val Thr Tyr Pro Ile Thr Val Asn Pro
 100 105 110

Pro Phe Val Pro Thr Glu Pro His His His His His Gly Gly Arg Gln
 115 120 125

Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His Gly
 130 135 140

Ser Gly Ser Pro Ser Arg His Pro Arg His Ala Glu Gly Thr Phe Thr
 145 150 155 160

Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile
 165 170 175

Ala Trp Leu Val Lys Gly Arg Gly
 180

<210> 24
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 24
 Ser Cys His Lys Arg
 1 5

<210> 25
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 25
 Arg His His Gly Pro Gly
 1 5

<210> 26
 <211> 37
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 26

His Asp Glu Phe Glu Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val
1 5 10 15
Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu
20 25 30
Val Lys Gly Arg Gly
35

<210> 27

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 27

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 28

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 28

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 29

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 29

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys
20 25

<210> 30

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 30

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly
20 25

<210> 31

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 31

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 32

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
pe